

**Notice of Allowability**

Application No.

09/707,690

Examiner

Toan D Nguyen

Applicant(s)

HWU, NAN SHAN

Art Unit

2665

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 2/10/05.
2. ☒ The allowed claim(s) is/are 1, 10-15, 19-23 are renumbered 1-8, respectively.
3. ☒ The drawings filed on 10 February 2005 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying Indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                                 |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date <u>3/10/05</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment   |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance                        |
|   | 9. <input type="checkbox"/> Other _____.  |

## **DETAILED ACTION**

### **Examiner Amendment**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Richard C. Himelhoch on March 10, 2005.

2. The application has been amended as follows:

#### **IN THE CLAIMS:**

In claim 1 line 8, delete "the fiber optic network cable" and insert --- a high speed fiber optic network cable ---.

In claim 1 line 10, delete "a high speed fiber optic network cable" and insert --- the high speed fiber optic network cable ---.

In claim 10 line 8, delete "a connector and a fiber optic cable," and insert --- a network connector and a fiber optic network cable, ---.

In claim 10 line 10, delete "the fiber optic cable" and insert --- the fiber optic network cable ---.

In claim 15 line 8, delete "a fiber optic cable" and insert --- a fiber optic network cable ---.

In claim 15 line 11, delete "the fiber optic network," and insert --- the sub-network, ---.

In claim 15 line 13, delete "the fiber optic sub-network;" and insert --- the sub-network; ---.

In claim 22, delete "the fiber optic network." and insert --- the sub-network. ---.

The above examiner's amendment was made to clarify the claims.

***Allowable Subject Matter***

3. The following is an examiner's statement of reasons for allowance:

Regarding claim 1, the prior art fails to teach a combination of the steps of:  
a network connector, wherein the network connector is a switch for controlling signal communication over a high speed optic network cable to avoid signal collisions and maintain determinism throughout the fiber optic network, in the specific combination as recited in the claim.

Regarding claim 10, the prior art fails to teach a combination of the steps of:  
operably connecting the first programmable logic controller, the second programmable logic controller and the IO module through a network connector and a fiber optic network cable, the operably connected first programmable logic controller, the second programmable logic controller, the IO module, the fiber optic network cable and the connector forming a sub-network; wherein data is transferred throughout the sub-network at a rate of at least 100Mb/s; and

providing a switch for controlling signal communication over the fiber optic network cable to avoid signal collisions and maintain determinism on the sub-network, in the specific combination as recited in the claim.

Regarding claim 15, the prior art fails to teach a combination of the steps of:

operably connecting the first programmable logic controller, the second programmable logic controller, the IO module through a network connector with a fiber optic network cable, and forming a sub-network, wherein the network connector is a switch for controlling signal communication over the fiber optic network cable to avoid signal collisions and maintain determinism throughout the sub-network, and wherein data is transferred throughout the sub-network at a rate of at least 100 Mb/s, in the specific combination as recited in the claim.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

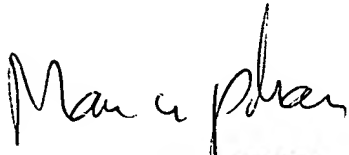
4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan D Nguyen whose telephone number is 571-272-3153. The examiner can normally be reached on M-F (7:00AM-4:30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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PRIMARY EXAMINER